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NEW SPECIES OF NORTH AMERICAN MYRMELIONIDÆ.

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IV.

Brachynemurus brunneus, new species.

Male.—Length, 40 mm.; expanse of wings, 55.4 mm.; greatest width of anterior wing, 6.4 mm.; length of antenna, 7 mm. Slender, prevailing colour fuscous, markings luteous; sparsely clothed with black and white hairs, more thickly so on abdomen.

Face scarcely convex; lower part luteous; covered above by a broad piceous band which encircles the antennæ; furrow between face and inner orbit of the eye fuscous. Circumocular area luteous, except along vertex, where it is mostly dark fuscous, and near the maxillary palpi, where there is a fuscous spot. Clypeus* luteous, rather short. Labrum transverse, luteous; rounded laterally and narrowed anteriorly, emarginate in front. Mandibles piceous, black at tips.

Maxillary palpi of moderate length, luteous, tinged with piceous apically, the fifth joint especially so; first two joints short, subequal in length, the first one about as broad as long, the second less broad; third joint somewhat longer than first two together, perceptibly curved, enlarged apically; fourth joint straight, considerably shorter than third; fifth joint somewhat longer than third, subcylindrical, notched at tip.

Labial palpi about same length as maxillary or slightly longer, luteous, more or less tinged with piceous apically; first joint about twice as long as broad; second joint somewhat more than twice as long as first, slightly curved, enlarged apically; third joint about same length as second, fusiform; tip narrowed and notched.

Maxillary palpigers luteous, clouded with piceous. Labium and labial palpigers luteous; mentum luteous, clouded with piceous posteriorly, with a long black bristle; in front a longitudinal median black

*One male specimen, labelled "Dunsmuir, Cal., Wickham," has a faint transverse fuscous line or series of dots separating the face from the clypeus. The female specimens have a fuscous clouding on each side of clypeus.

line passing between the labial palpigera to the basal portion of the labium. Gula luteous, clouded with darker.

Antennæ somewhat clavate, as long as head and thorax, fuscous, darker before tip, sparsely covered with very short stiff black hairs; first two joints piceous, luteous at articulations; a luteous crescent bounds base of first joint in front.

Vertex elevated behind, rounded, luteous; in front, on depressed portion, dark fuscous; behind, on elevated portion, two dark fuscous bands*, the posterior irregular and spread out each side so as to approach, sometimes to meet, the anterior band. Behind this a median, oval, black or rufo-piceous spot.

Pronotum dark fuscous; a longitudinal median luteous line and one each side†. Sides of pronotum luteous, divided by a fuscous line‡. Lateral carinæ luteous. Below luteous, marked on each side with dark fuscous.

Mesonotum fuscous; lobes moderately elevated; anterior lobe with a longitudinal median line and a dot or two luteous; each lateral lobe marked with two luteous lines on its inner side; a luteous spot or two also near articulation of wing; posterior lobe with a longitudinal median luteous line, sides and rear of the lobe also margined with luteous. Sides and beneath fuscous, marked with luteous.

Metanotum fuscous; anterior lobe margined in front with luteous, with a longitudinal median luteous line; patterned similarly to mesonotum, the inner luteous line of lateral lobe forming a rough triangle, the apex of which is near middorsal line. Sides and beneath fuscous, marked with luteous.

Abdomen fuscous, articulations luteous; segments luteous above, especially at base, with a longitudinal median fuscous line.

Appendages one-half the length of seventh segment, slender, arcuate for their posterior halves, somewhat flattened laterally; fuscous, luteous near tips; clothed with coarse black bristles; there is the usual triangular fuscous plate between the appendages below; this plate is luteous apically.

*In one male specimen, collected at Dunsmuir, California, by Mr. H. F. Wickham, the anterior band is very indistinctly separated from the fuscous depressed portion of the vertex.

†This line is usually most distinct in front of the transverse furrow, where it becomes a good-sized spot; it is interrupted at the furrow and in the male specimens is only faintly indicated behind it.

‡This line is divided into two parts in the females.

Legs of moderate size, luteous, with black and pale hairs and spines; dotted with piceous at bases of the spines, these dots sometimes coalescent in places; tibiæ piceous at bases and apices, each with a transverse piceous line on basal half externally. Tibial spurs longer than first tarsal joint, slightly curved, rufo-piceous; spurs of anterior and middle tibiæ longer than those of posterior. Tarsal joints piceous at their apices, the third and fourth especially so; claws a little more than half the length of last tarsal joint, moderately curved, rufo-piceous.

Wings of moderate size, hyaline. Venation hairy. Pterostigma whitish, fuscous on inner side. Apical third or more of veins of intercostal series forked. Veins light brown or fuscous, interrupted irregularly with paler; the subcostal vein darker, with a distinct luteous mark between each transversal.

Anterior wings marked as in *B. niger**, but the markings less extended and light brown in colour. Posterior wings almost immaculate. Posterior borders of both wings fringed with fine hairs.

Female.—Length, 31 mm.; expanse of wings, 58.5 mm.; greatest width of anterior wing, 6.3 mm.; length of antenna, 6 mm.

Antennæ more clavate than in male; first joint luteous behind, the following joints luteous at articulations, especially the basal ones. The luteous markings are more extended and distinct than in the males. A luteous spot or band is present between the antennæ.

Anterior fuscous band of the vertex continued posteriorly along the longitudinal median furrow; the posterior band appears like an irregular group of more or less coalescent fuscous spots, divided at the median furrow.

Abdomen somewhat shorter than wings, marked similarly to that of male, but there is little luteous on basal segments above except at middle of segments and at their articulations, the middorsal fuscous line hardly apparent†.

Tip of abdomen luteous, clouded with fuscous; clothed above with black hairs; superior parts split; inferior parts beset with coarse black spines; below two small cylindrical luteous appendages, three times as long as broad, with some very long black hairs or bristles.

Wing markings and veins somewhat darker than in males.

*CAN. ENT., XXX., 5, 1898, p. 136.

†Two of the females (co-types) have this line quite apparent, especially the specimen from Los Angeles, California, collected by Mr. D. W. Coquillett.

Type.—No. 4073, U. S. National Museum. One male specimen collected by the author at Fountain, Yellowstone National Park, August 10, 1896.

No. 4073a, U. S. National Museum. One female specimen collected by the author at Sage Creek, Wyoming, July 28, 1896.

Co-types.—Collection, U. S. National Museum. One male collected at Dunsmuir, California, by Mr. H. F. Wickham; one male collected in Los Angeles County, California, in September, by Mr. D. W. Coquillett; two females with no labels; one female from Los Angeles County, California, collection of D. W. Coquillett.

The female of this species resembles *B. niger*, but is lighter coloured, the wing markings are lighter and less extended, and the labial palpi are normal.

A BRIGHT RED PARASITE OF COCCIDÆ.

BY T. D. A. COCKERELL, N. M. AGR. EXP. STA.

Aphycus Howardi, n. sp.—♀. Length about 1 mm.; entirely bright scarlet, except the brown antennal club, sage-green eyes, and white tarsi; with the apical portion dusky. Wings dull hyaline, with a dark cloud ending at stigmal vein, whitish just beyond and hyaline at tip. Scape not dilated, club about or almost as long as the four joints before it. Mesonotum and scutellum with numerous short white hairs, mesonotum with no naked spots; mesopleura very delicately shagreened, with no longitudinal impressions.

Hab.—Mesilla Park, New Mexico; bred from *Eriococcus Tinsleyi*, Ckll., on *Atriplex canescens*; collected by Prof. J. D. Tinsley. Emerged August 6th, and some days following. The colour of this beautiful little *Aphycus* is just like that of *Perdita luteola* when reddened by cyanide, and I should certainly have considered it as due to the same cause, had I not seen the species alive. The original type is now in the U. S. Nat. Museum; two or three others were bred after the description had been written. *A. Howardi* is named after Dr. L. O. Howard, in recognition of his valuable work on the parasites of Coccidæ. He has now in press a revision of the genus *Aphycus*, and the present insect was found just too late to be included in it. He has very kindly informed me that it is distinct from all the species known to him or published by others, and has given me some notes on its specific peculiarities.